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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|---------------------|------------------|
| 09/857,906 | 01/04/2002 | Christopher D. Batich | OMT-1 US | 1157 |
| 3775 | 7590 | 12/17/2004 | EXAMINER | |
| ELMAN TECHNOLOGY LAW, P.C. P. O. BOX 209 SWARTHMORE, PA 19081-0209 | | | LEWIS, KIM M | |
| | | | ART UNIT | PAPER NUMBER |

3743

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,906

Applicant(s)

BATICH ET AL.

Examiner

Kim M. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. <u>8/26/04</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> |

DETAILED ACTION

This final office action replaces the original final office action mailed 6/29/04.

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,672,418 ("Hansen et al.") in view of U.S. Patent No. 4,878,908 ("Martin et al.).

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Regarding claim 1, Hansen et al. disclose particle binders for use in the manufacturing of absorbent pads, bandages (wound dressings), etc. (note the brief description of the drawing section). Hansen et al. further disclose that the method of preparing such products comprises cross-linking anti-microbial particles, such as, for example, carbox, which comprises a polymer, and chloramphenicol, which comprises a polymer (table 1, col. 15-17) to various disclosed fibers via a binder. The binders have "...at least one functional group that is capable of forming a hydrogen bond with fibers, and at least one functional group that also is capable of forming a hydrogen bond or a coordinated covalent bond with particles that have a hydrogen-bonding or a covalent bonding functionality" (*i.e.*, not siloxane bonds bind the particles to the fibers) (col. 3, lines 27-32).

The following steps complete the formation of the articles: forming the fibers into a sheet or web, attaching the binder and particles, forming the desired absorbent articles.

Hansen et al. fail to teach that the sheet or web is a superabsorbent polymer matrix having an enhanced surface area. The applicant should note that it is disclosed in the specification of the present invention that the superabsorbent polymer matrix is formed by electrostatic spinning fibers, such as, for example, polyvinyl alcohol.

Martin et al. disclose the fibrillar products, such as a wound dressing (Fig. 4) having a high surface area and being constructed from a mat (web) made by electrostatic spinning of fibers constructed from material, such as, polyvinyl alcohol (col.

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4, line 46). Therefore, Martin et al. disclose a superabsorbent polymer matrix similar to that of the instant invention.

Martin et al. further disclose that the dressings may include surface treatments with antiseptics or other wound healing properties (col. 2, lines 15-51).

It would have been obvious to one having ordinary skill in the art to substitute the web of Hansen et al. for the mat (web) of Martin et al. because as explained at col. 8, lines 26-34, "[t]he high surface area of the mats according to the present invention affords a method of immobilizing a range of active moieties so that they are constrained to act at the site of application and do not percolate throughout the body. Moieties, which may be immobilized, include enzymes, drugs and active carbon. These moieties may be added to the spinning solutions or dispersions or the mats may subsequently be treated with them."

Additionally, the examiner contends that the mat (web) of Martin et al. would perform equally as well as the web disclosed in Hansen et al., and that when Hansen et al. is modified to include the web of Martin et al., it too will perform equally as well as the instant invention.

As regards claim 3, as can be read from the rejection of claim 1 above, once modified the moieties (antimicrobial compounds) will bond to the fibers extending above the outer surface of the web in a chain-like fashion.

As regards claims 5-7, the bandage can be used as a sanitary pad or as a tampon.

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4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al. and Martin et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,429,628 ("Trinh et al.").

As regards claims 2 and 4, both Hansen et al. and Martin et al. fail to teach antimicrobial compounds attached to the web/mat are quaternary ammonium compounds. However, Trinh et al. disclose that it is conventional to add quaternary ammonium compounds to articles for use on the body as a common antibacterial (antimicrobial) agent.

In view of Trinh et al., one having ordinary skill in the art would have been motivated to select quaternary ammonium compounds as the antimicrobial agent in order to prevent the growth of microbial bacteria.

Additionally, the applicant should note that Hansen et al. disclose that particles are bonded to the web by covalent bonding.

Response to Arguments

Applicants' arguments filed 10/1/03 and 1/14/04 have been fully considered but they are not persuasive. First the applicants have not established that the antimicrobials (e.g., carbox and chloramphenicol) are bonded to the fiber material of Hansen et al. via siloxane bonds. Additionally, the applicants' have not established that the moieties (e.g., enzymes, drugs and active carbon) that may be added to the spinning solutions or dispersions or subsequently added as a treatment to the mats of Martin et al. are bonded via siloxane bonds.

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At a minimum, the applicant's have not provided evidence that carabox or chloramphenicol contain elements that would even allow a siloxane bond to form when the antimicrobials are added to the fibers of Hansen or the mat or Martin et al.

As such, the examiner maintains her rejection that non-siloxane bonds are formed to bond the antimicrobial to the modified device of Hansen et al.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

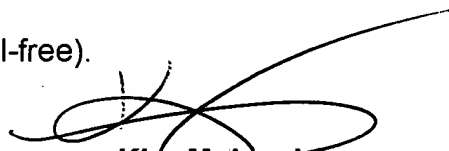
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim M. Lewis whose telephone number is

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703.308.1191. The examiner can normally be reached on Mondays to Thursdays from 5:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett can be reached on 703.308.0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kim M. Lewis
Primary Examiner
Art Unit 3743

kml
June 27, 2004